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AMBLYOPIA CAUSED BY ANÆSTHESIA OF THE RETINA.
ENTIRE RECOVERY.*

CASE TREATED AT THE EYE INFIRMARY OF WIESBADEN, AND REPORTED BY
DR. G. HAASE.

[Translated from the *Klinische Monatsblätter für Augenheilkunde*, August, 1866, by HASKET DERRY, M.D., and communicated for the Boston Medical and Surgical Journal.]

Miss von S., from H., 17 years old, presented herself Dec. 6th, 1865, complaining that she had seen nothing with the left eye for the last five months. She attributes this loss of vision to the fact that the eye was struck by the cork of a bottle of Seltzer water which was being opened. She says that immediately after this accident she could only distinguish between light and darkness, and that this state of things has remained unchanged up to the present. The attending physician prescribed cold applications, strict seclusion from light, and the use of the eye douche. In spite of fourteen days' treatment, no improvement took place. Two years before this injury the patient had commenced the use of concave glasses, wearing at first $-\frac{1}{4}$. These glasses, with which she saw perfectly well at first, soon became too weak, and she was obliged to continually increase their strength, till at the end of two years she had reached $-\frac{1}{2}$. After the injury, the myopia of the right eye became still greater, and the patient was now obliged to use $-\frac{1}{4}$ to see distinctly. We learned, moreover, that for more than two years the patient had suffered from sensations of dazzling, persistent headache, an inflated feeling in the stomach and nausea, and a year before had passed through an attack of chorea. Catamenia always regular.

* Cases of this kind have been but recently investigated and classified. Even at this time their diagnosis would be but little more obscure to the general practitioner than to many a professed ophthalmologist. So important is it that they should be carefully separated from other forms of amblyopia, and so different is the treatment they require, that I desire to call attention to the accompanying very instructive case. Another instance of the same affection may be found in the "Clinical Lectures on Amblyopia and Amaurosis," by von Graefe, Case VII., a translation of which was published in this JOURNAL during the past winter. Excepting these two translations, probably nothing else is to be found in the English language on true anæsthesia of the retina.—H. D.

On close examination of the eyes, it is found that, with the left eye, fingers can be counted at the distance of $1\frac{1}{2}$ feet, though not with entire accuracy. On looking through blue glasses, the vision is stated to be improved. There is a marked concentric contraction of the field of vision. The average diameter of the remaining portion, measured at $1\frac{1}{2}$ feet, amounts to 16 centimetres. The right eye

reads Jaeger No. 4; myopia = $\frac{1}{43}$; vision = $\frac{1}{2}$. Here, too, a concentric contraction of the field of vision is detected; the diameter of the remaining portion amounts to 16 centimetres. By means of blue glasses, the field of vision of either eye gains from 1 to 2 centimetres. On each side phosphenes are easily produced. The ophthalmoscope shows a slight amount of sclerotico-choroiditis in the left eye; the remaining appearances in each are normal.

The principal factors in determining the diagnosis of the present case were:—1st, the tendency of the patient to nervous derangements, as revealed by the previous investigation; 2d, the concentric contraction of each field of vision; 3d, the youthful time of life; 4th, the absence of ophthalmoscopic change; 5th, the improvement in vision resulting from colored glasses; 6th, the symptoms of dazzling. We were thus led to establish a diagnosis of anæsthesia of the retina and a favorable prognosis, the patient being accordingly admitted into the infirmary for treatment.

Valerianate of zinc, gr. ij., was ordered to be taken daily, and to be increased by gr. i. every second day. The patient was not to use the eyes in the least, and to be entirely deprived of light.

An examination made Dec. 11th, showed that improvement had already taken place. With the left eye, patient reads words of No. 19. Each field of vision has gained somewhat in size.

Dec. 16th.—With the left eye, patient reads No. 18 by the aid of blue glasses; it being impossible for her without them to make out words of No. 20. Field of vision somewhat narrower than on Dec. 2d. On lowering the flame of the lamp, a slight increase in the field of vision may be demonstrated.

19th.—Patient reads left, No. 17; right, No. 4; the left eye always being aided by a blue glass. *R.* Zinci lact., gr. ij. daily.

22d.—Increase in each field of vision. The improvement brought about in the vision by means of green and yellow glasses is remarkable; the left eye reads No. 17 through a blue glass, No. 16 through a green, and No. 15 through a yellow; the right, No. 2 through a yellow.

The next day the patient reads through red glasses—the right, No. 1; left, No. 14. With a glass of the deepest violet tint, through which a normal eye would with difficulty make out No. 6, she reads, left, No. 14. It is with difficulty that she is able to look continuously through the concave glasses previously worn. Partly for therapeutical purposes, and partly to make an accurate determination of

the amount of existing myopia, each eye is brought under the full influence of atropine.

29th.—With the left eye, and aided by blue glasses, patient reads No. 7 at a distance of from 9 to 10 inches; myopia = $\frac{1}{3}$; vision = $\frac{2}{5}$. The right eye reads No. 1 in 10 inches; myopia = $\frac{1}{10}$; vision $\frac{1}{2}$. R. Ferri hydrogen. reduct., gr. iij., daily.

Jan. 5th, 1866.—The field of vision shows a marked increase in size compared with formerly, that of the left eye being the larger. Its diameter, measured at $1\frac{1}{2}$ feet, amounts to between 25 and 30 centimetres. The left eye reads No. 4; vision = $\frac{1}{2}$; the right, No. 1; vision = $\frac{3}{4}$. Patient complains of severe pains in the eyes, coming on after any attempt at more exact fixation. The examination as to insufficiency of the interni reveals an insufficiency at the distance of 10 inches; corrected by a prism of 7° , with the base inwards.

11th.—Aided by the prismatic spectacles, the patient reads No. 1 with each eye, fluently and without exertion. The field of vision has again decidedly gained, that of the left being still the larger. From this time up to the discharge of the patient, on the 18th of January, both the field and the acuteness of vision steadily gained, the vision being always improved by colored glasses, among which red occupied the first place.

18th.—Vision of left = 1; of right = $\frac{3}{4}$. The powder (iron) was ordered to be for the present continued. A course of the waters of Schwalbach was advised for the summer.

The history of this case has been detailed with so much minuteness, because we are not aware of the existence of any exactly described cases of this kind.

To von Graefe belongs the merit of having divided the different classes of amaurosis and amblyopia, and established their diagnosis and prognosis. In his lectures on Amaurosis, reported by Dr. Engelhardt (*Monatsblätter*, 1865), we find, too, the description of a case of anæsthesia of the retina, occurring in a delicate boy 10 years old, and entirely cured after a treatment of four weeks. Here, too, were found nervous derangements, which in our case took on more of an hysterical character. One might have been inclined to set down the accident to the eye, which happened six months previously, as the exciting cause of the disease; this theory, however, was refuted by the fact that a material diminution in vision and contraction of the field of vision were found in the right eye, which had not received any injury, as also by the statement of the patient that she had noticed a failure of sight before the injury, although we may assume that the disease of the eyes was aggravated by this accident, followed as it was by strong nervous excitement on the part of the patient.

It is a source of much gratification to us that we entirely abstained from our original plan of experimenting on the patient with the Heurteloup, inasmuch as we subsequently came across notes of similar cases of anæsthesia, in which, after the application of this and

similar derivative agents, the disease took on an extremely obstinate character, and the patients had to be discharged unimproved.

In support of which, as much of the following case as can be found in the records, is briefly presented.

Miss J., from N., 24 years old, was admitted into the Infirmary, Aug. 22d, 1862. The patient had already had trouble with the eyes. Three months before she was suddenly attacked with nystagmus, vivid sensations of dazzling and photophobia, and observed a gradual diminution of vision. The physicians who were consulted suspected an affection of the optic nerve, and ordered derivatives. At the same time, a contraction in the field of vision downwards and inwards was found to exist in the right eye; the patient is said to have read Jaeger No. 3.

The condition of the patient at her admission was as follows:—No. 1 is read with each eye; each field of vision is concentrically contracted; measured at six inches the diameter of the remaining portion averages two inches. Diagnosis, commencing atrophy of the optic nerve. Prognosis, unfavorable.

August 25th.—Patient receives one cylinder of the Heurteloup on each side; tinct. valerian. and tinct. castorei are ordered internally. A species of fainting turns occur, during which the hands and feet become cold and vision entirely fails for a short time. The field and acuteness of vision maintained themselves at the same point up to Sept. 2d, when a second application of a single cylinder was made on each side. The symptoms of nervous irritation now increased, while the field and acuteness of vision steadily diminished.

Sept. 27th.—The patient was discharged, not relieved, and iron ordered internally. According to oral reports, dating from Sept. 17th, the general health had improved; the trouble with the eyes remained the same. The patient now received applications of electricity, and loss of cutaneous sensibility to pain in various parts of the body, especially on the back, was made out. After forty-one sittings, the state of the patient remained the same. The last note we find in this case is dated January 17th, 1863, on which day the patient presented herself in an unaltered condition.

There is no doubt but that we have here to do with a case analogous to the one we have described at length, and which, under similar treatment, would also have gradually improved.

THE medical classes of that city, according to the *New York Medical Record*, are not as large as some of the most sanguine had reason, at the commencement of the lecture term, to expect. Some of the schools have, it is true, a very fair attendance, but the majority are considerably in the background compared with what they were last year.

POST-PARTUM HÆMORRHAGE ON THE ELEVENTH DAY AFTER DELIVERY. DEATH.

By JOHN HOMANS, JR., M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

Mrs. McS., a resident of Charlestown, a strong and very fleshy woman, 43 years of age, expecting to be confined in January, 1867, was seized with convulsions on the 11th of the present month. She had miscarried once, and had borne eight living children, so that she was now in her tenth pregnancy. Her previous labors had been short and easy, lasting about two hours, and on the fourth day after her confinements she had resumed her household duties; but, before her last baby was born, her lower extremities had been swollen, and she had had a "fit" after delivery. During her present pregnancy she had been perfectly well, except that her hands had at times felt numb. On the morning of Dec. 11th she went to Boston, feeling perfectly well; she made some purchases in the city, and came home in the afternoon. Soon after her return, about four o'clock in the afternoon, she went to her room, lay down on her bed, vomited and became convulsed. A physician was called, and she was bled, losing at the time of the bleeding and subsequently about a pint and a half of blood. I saw her at 11, P.M., and was informed that up to that time she had had seven fits. Between the time when I arrived and noon of the next day she had seven more fits, some of them very severe, biting of tongue, &c. &c., followed by stertorous breathing. Her urine was found to be highly albuminous, and contained many granular and waxy casts of the tubules of the kidney. Ether was administered, and controlled the convulsions in a measure. The labor pains were feeble, the os dilated very slowly, and at 9, A.M., Dec. 12th, was the size of a dollar, and hard. Warm water was thrown into the cavity of the uterus through a catheter passed by the side of the child's head, and half an ounce of castor oil was given by the mouth. The oil operated freely during the afternoon. She had been wholly unconscious since the first convulsion, but could swallow. At five o'clock in the afternoon, the os being well dilated, the pains being insufficient to expel the child, the head not yet having entered the pelvis and there being no prospect of its doing so, the long forceps were applied. Delivery of the child (the sounds of the foetal heart had not been heard for fourteen hours) was safely accomplished. The placenta followed twenty minutes afterwards, the uterus contracted firmly, and there was no hæmorrhage.

Dec. 13th.—Is recovering her senses, and recognizes those around her. Pulse 100, soft. Urine, drawn off, is albuminous, and contains casts.

14th.—Is improving. No flooding. Urine still contains casts, albumen, and many crystals of uric acid. Ordered to remain in bed.

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Has some diarrhœa; to take Dover's powder. Abdomen natural to the feel.

16th.—Is perfectly herself; voice quite hoarse; does not remember events of the last three weeks. Urine slightly albuminous; no casts could be found.

22d.—Feels very strong, and has with difficulty been persuaded to keep her bed; has a good appetite; digestion natural. Urine contains a *trace* of albumen; no casts, and many healthy pus-corpuscles.

On the morning of Dec. 23d I was called to visit her, but found her dead. I learnt that she had come down stairs during the afternoon of the 22d, feeling very strong and well. While she was sitting in the kitchen, a boy was brought in who had fallen through the ice of a neighboring pond. Mrs. McS. was very much agitated and alarmed at the sight. She retired to bed at 6, P.M., and at 8½ flooding suddenly occurred to an alarming degree, and caused much exhaustion. A neighboring physician was called, who prescribed, and the flooding ceased. A second attack came on some two hours afterwards, and patient died at 3½, A.M., Dec. 23d. I was summoned, but the messenger did not reach me till after the death of Mrs. McS. No autopsy was made.

I can find in the obstetrical works and essays which I have examined, but *one* case in which *post-partum hæmorrhage* occurred *ten days* after the expulsion of the placenta. Dr. Collins states that during his Mastership of the Dublin Lying-in Hospital, a period of seven years, among 16,414 cases of labor there were but *forty-three* cases of hæmorrhage *subsequent to the expulsion of the placenta*. Of these, but *three* occurred later than *twelve hours* after the expulsion of the placenta. One was on the *fourth day*, one on the *fifth*, and one on the *tenth*. The case above described occurred on the *eleventh*. The woman referred to by Dr. Collins as having hæmorrhage on the tenth day, "had frequent discharges of blood from the uterus for the first ten days, and on the tenth, the discharge becoming profuse, some coagula were removed from the cavity of the uterus, and the discharge ceased." The sudden occurrence of fatal uterine hæmorrhage, as late as the eleventh day after the expulsion of the placenta, without previous warning, and when the patient might fairly have been called well, seems to me extraordinary.

December 24th, 1866.

Swinging as a Remedy.—Brown-Séquard recommends the use of the swing as a preventive of nervous paroxysms which recur periodically. In certain cases of hysteria and epilepsy, he has prevented the paroxysm by engaging his patient in violent swinging at the first indication of the accession of the fit. The *modus operandi* is easily explained.—*Detroit Review of Medicine and Pharmacy.*

CASE OF FRACTURE OF THE HIP-JOINT, WITH OTHER SEVERE INJURIES, TREATED WITHOUT SPLINTS.

By THEODORE W. FISHER, M.D., Boston.

[Communicated for the Boston Medical and Surgical Journal.]

J. T., aged 13 years, a healthy boy, of Irish parentage, April 14th, 1862, fell from the fourth story upon a plank walk. He was taken up insensible, but had revived when I saw him, ten minutes after the accident.

I found a compound, comminuted fracture into the right elbow-joint, with dislocation of the ulna and radius outwards. The external wound was two inches in length, and through it could be seen the whole articulation. Both radius and ulna were broken and much displaced, two inches above the right wrist. The head of the radius was broken near the left wrist. One or more ribs were broken, on the right side, wounding the pleura and producing emphysema of the parietes of that side. There was distinct crepitus over the right trochanter, with eversion of the foot, and shortening to the extent of an inch. The shock was not very severe, and the pulse 88, and of fair strength. He suffered most from efforts to cough, which gave much pain, and a binder was applied to support the chest.

He was seen three hours after the accident by Dr. H. G. Clark, in consultation. The patient was etherized, fragments of bone were removed from the elbow, and dislocations reduced. An internal angular splint was loosely applied to the right arm, which was supported by a pillow, and water-dressing applied. Straight splints were used for the wrists. Extension was applied to right foot by a brick attached in the usual manner to the leg, and counter extension by strips of sheets, on each side of the perinæum, fastened to the head of the bed. Beef-tea and brandy were ordered in moderate doses. The reaction came on in the evening. Pulse 110. Brandy discontinued.

April 15th.—Has slept none, and pulse 120. Hip very painful, with constant tendency to eversion, which was counteracted by a broad strip of plaster, around the thigh, attached to a weight hanging over the left side of the bed. No extension of emphysema. Slight bloody expectoration. Morphine, gr. $\frac{1}{4}$, at bed-time.

16th.—Slept six hours. Pulse 116, full and quick. Breathes more easily.

17th.—Slept well. Eats well. Pulse 128.

18th.—Pulse 112. Respirations 28. Elbow swollen.

19th.—Swelling and discoloration in right groin noticed.

20th.—Pale and chilly. Emphysema disappearing. Bears extension well. Pulse 100. Wound in elbow discharges freely.

29th.—Complains of severe stinging pain in second, third and fourth fingers of right hand. Pulse 100. Ordered quinine, gr. i., three times a day.

May 10th.—Etherized, and two openings made in the elbow, discharging a small quantity of pus. Poultice ordered.

29th.—Etherized, and a free opening made near inner condyle. Considerable pus and a small fragment discharged.

June 1st.—Weak and irritable. Pulse 120. Most of weight removed from leg. Nourishing diet urged on him.

15th.—Doing well. Encourage motion of leg; to be kept flexed part of time by means of a sling.

26th.—Sits up, and walks a little.

July 14th.—Three months after the accident. Walks with a slight limp only. Perfect motion in left wrist. Good union of radius and ulna of right arm, with increasing motion of the hand. Elbow stiff, and fixed at a convenient angle.

This patient eventually walked without lameness, and recovered a slight motion in his elbow.

THE ARTIFICIAL PRODUCTION OF AROMATIC SUBSTANCES.

The following remarks upon the artificial production of aromatic substances are extracted from one of the Cantor Lectures, delivered by Dr. F. Crace Calvert, at the Society of Arts:—

The artificial production of this class of substances is a subject which must excite interest, for it has reference to many of the perfumes which we use every day for our toilet, and which contribute to the enjoyment we feel when admiring certain flowers. Therefore I shall begin by stating that chemists have produced artificially that fragrant odor which is given off by an all-admired flower called the lily of the valley, and which perfume is identical with that given off by the small yellow flower of the *Spiraea ulmaria*, which grows and perfumes the banks of streams winding through our valleys, and which aromatic principle chemists have also traced in a most odoriferous bean, the tonka bean. What enhances the interest in the artificial re-production of this aromatic compound is, that it is derived from a white crystallized substance, called salicine, having a most bitter taste, which is obtained from the bark of the willow or poplar, trees which are often the companions of the lily of the valley and the *Spiraea ulmaria*.

To extract salicine from the bark of the willow or the poplar, it is simply necessary to boil it in water, to add a little oxide of lead so as to separate the resinous and other matters in solution, then to concentrate the liquors, when, on cooling, they yield salicine.

Let us now follow the transformations which this substance—which has been employed as a substitute for quinine in cases of intermittent fevers—undergoes, to become converted into a product identical with that which characterizes the perfume of the lily of the valley, the *Spiraea ulmaria*, and the tonka bean, and which substance has received the

name of salicylous acid. To prepare it from the *Spiræa ulmaria*, or the lily of the valley, it is necessary to boil the flowers with a little caustic potash, which unites with the salicylous acid; and in removing that compound from the aqueous solution it is easy to obtain the acid above mentioned. To prepare it artificially from salicine, one part of that substance is mixed with one of bi-chromate of potash, 20 of water, and $2\frac{1}{2}$ of sulphuric acid. On heat being applied to the mixtures salicylous acid distils, which, being insoluble in water, is easily separated, and its powerful fragrant odor easily appreciated.

But there is another series of facts connected with this subject to which I desire to call your attention, and which are linked together by the interesting substance, salicylous acid. Thus, when this organic compound is heated with potash, it fixes two proportions of oxygen, and becomes transformed into a substance called salicylic acid, which, when liberated from its combination by means of hydrochloric acid, separates under the form of white and well-defined prismatic crystals, perfectly inodorous, and soluble in water and alcohol. If to this acid we now add wood-naphtha and a little sulphuric acid, they yield, on the application of heat, a most fragrant perfume, which is identical to that imported at the present time in large quantities from America, under the name of essence of winter-green, or essence of *gaultheria*, extracted from a small heath plant, or *Erica*, which grows wild on the sides of the mountain rocks of New Jersey.

The essence of winter-green offers to chemists, and to us this evening, a peculiar interest, owing to the fact that it is a natural ether, that is to say, a compound of salicylic acid united with the oxide of methyl; whilst all the other essences and perfumes are hydro-carbons, to many of which I called your attention in my last lecture, as well as to some other hydro-carbons, containing in addition a small amount of oxygen. When the discovery was made by Cahour that the essence of *gaultheria* was a natural ether, the chemical world became so excited, that they dreamt that they were at once going to reproduce easily every known perfume; and although this has not been realized, still many interesting data have been added to our store of knowledge. As an example, I can cite that if the essence of *gaultheria* is heated with caustic baryta it unfolds itself into carbonic acid and into a substance called anisol, which has a highly pungent odor, and quite different in its properties from that of the substance employed to generate it. On the other hand, if anisic acid, which is easily obtainable from the essence of aniseed, is acted upon in the same way, anisol is also produced, thus showing how closely allied, in a chemical point of view, are the essences of *gaultheria* and aniseed.

Let us proceed to examine together a substance which of late has been much used as medicine, called valerianic acid, and which offers much interest, owing to the various wide and curious sources

from which chemists have been able to extract it. To prepare valerianic acid from the roots of the *Valeriana officinalis*, all that is required is to split the wood into small pieces, to place it with water in a retort, and on heat being applied the water distils, and there floats in it an oily matter, which is valerianic acid, separated easily. This acid can also be obtained by the same process from the guelder rose or water elder, as well as from the repulsive product called oil of porpoise, the odor of which is in a great measure due to valerianic acid. It has also been extracted from various classes of cheeses by my learned master, M. Chevreul, who has also traced its presence among the products which result when animal matter is allowed to enter into slow putrefaction.

But what are especially important are the means by which valerianic acid can be artificially produced. I shall begin by stating that when the essence of chamomile is allowed to fall, drop by drop, into melted caustic potash, it is oxidized and converted into valerianic acid. Another interesting production of this acid, is one which has been followed of late years in order to obtain it in sufficient quantity to meet the demand which has arisen in consequence of its therapeutic properties, and its employment by medical men, and this is its artificial production from fusel oil, a product which is obtained during the rectification of raw spirits. In fact, it is the entire removal of this substance through distillation that constitutes the art of the rectifier; for by so doing he obtains purer alcohol, which has an agreeable flavor, and which does not injure man but when taken in excess, whilst if it contains the fusel oil, not only is the taste of the alcohol rank and disagreeable, but it appears to have a peculiar irritating action on the nervous system.

Among the various methods which have been devised for converting fusel oil into valerianic acid, the most effective, I believe, consists in mixing fusel oil with bi-chromate of potash and sulphuric acid, when by the action of the oxygen liberated from the bi-chromate of potash through the action of the sulphuric acid, the fusel oil is oxidized and converted into valerianic acid.

As I have called your attention to fusel oil, let me state at once that this substance, which is so repulsive in consequence of its odor, has, notwithstanding, been much employed of late years to manufacture substances used extensively under the name of flavoring essences, that is to say, essences which are used to impart the flavor of jargonel pears, as well as that of apples, to sweet drops, &c.

The first of these essences is produced by mixing together acetate of potash, fusel oil, and sulphuric acid, when the result of the operation is sulphate of potash and acetate of amyl, which compound is, in reality, the essence of the jargonel pear. To prepare that of apples, all that is required is to unite valerianic acid with its derivative, the oxide of amyl, producing the valerianate of amyl, or the essence of apple. And allow me to add, that the essence of pine-

apple is a product obtained through the oxidation of olive oil by nitric acid, giving rise to cenanthylic acid, and that when this acid is mixed with alcohol and sulphuric acid, they produce cenanthylic ether, called essence of pineapple. Practice and experience have gradually led to the manufacture of a large variety of these products, most of which are mixtures of various substances obtained through chemical actions, and certainly nothing can be more curious and instructive than to reflect that such aromatic flavors are derived from products which in reality have most noxious odors, and which are so repulsive in their nature that they are considered mere refuse. It is to Dr. Hoffman that we are indebted for a correct knowledge of the chemical composition of this interesting class of substances.

Permit me to dwell for a few minutes on the artificial production of the essence of lemon, now manufactured in large quantities by the process which I am going to describe, which consists in obtaining it from the essence of turpentine, substances, strange to say, differing one from the other only in the fact that one molecule of turpentine can be unfolded into two of essence of lemon. To effect this splitting (if I may so express myself) of a molecule of turpentine into two of essence of lemon, the turpentine is mixed with alcohol and nitric acid, and the mixture exposed to the rays of the sun, when gradually the turpentine unites with the water, giving rise to hydrate of turpentine; a combination of this substance with six atoms of water, giving birth to large, well-defined crystals, which are separated from the mother liquors in which they have been formed. These crystals, on being submitted to the action of hydrochloric acid, unite with the gas, and give rise to a liquid and a solid substance, which liquid portion, on being acted upon by potassium, gives birth to the essence of lemon. If, instead of operating upon the hydrate of turpentine with hydrochloric gas, we act with it at once on turpentine, we shall observe that the gas is absorbed in large quantities, and after a short time a white, solid, crystallized substance will be formed, which, on being separated from the fluid in excess, pressed between folds of paper, and then sublimated by gentle heat in a retort, yields a white, crystalline, transparent substance, whose odor is identical to that of natural camphors as they are imported, either from China or the island of Borneo, countries which chiefly supply us with that useful aromatic substance, and which is easily obtained by placing slips of wood belonging to the tribe of plants called *Laurus camphora* with water, in iron shallow vessels, and placing over them metallic cones filled with rice straw. On the application of heat the camphor is vaporized, and becomes condensed under the form of small crystals, which attach themselves to the rice straw, from which they are easily removed, collected, and shipped to this country, where they are introduced in large glass vessels, and which are in their turn placed in heated sand baths, where the camphor volatilizes, and is

re-condensed on the colder parts of the glass vessels, forming large, solid, white cakes, so well known to us as refined camphor.

There are few substances in the vegetable kingdom which have excited more interest in the chemist's mind, and have called forth more researches, than a seed, the products of which are extensively used in every-day life, and whose composition is still so little known by the public—I mean the seed of the mustard plant. It is necessary that I should state there is a marked difference between white and black mustards, notwithstanding both of them contain starch and a fatty matter. Thus, when white mustard is mixed with lukewarm water, the elements of the seed appear to undergo no modification; whilst if black mustard seed is placed under similar circumstances a most powerful and pungent odor is produced, arising from the generation of the essential oil of mustard. As this oil is the result of the action of an albuminous ferment, mysorine, on a substance called myronic acid, unfolding it into an essential oil, and as this chemical phenomenon is prevented by a temperature of 212° , it therefore follows that whenever it is desirable to produce this oil, which acts as a powerful caustic on the skin, it is necessary that the temperature of the water with which the mustard is mixed should not exceed 150° , for without this precaution the ferment mysorine is coagulated, the chemical action ceases, the essential oil is not produced, and thus the benefit which might result from the application of such a substance under the form of a poultice is not attained. It is no doubt with a view of avoiding the evil results which often occur when mustard seed is used as a poultice, that of late the essence itself has been patronized by medical men.

Among the numerous transformations which chemists have succeeded in effecting in connection with the essence of mustard, the most interesting is its conversion into essence of garlic, which is most easily effected under the following circumstances, namely, heating essence of mustard with potassium, when a certain amount of carbon, sulphur, and nitrogen are removed, which unite with the potassium to form sulpho-cyanide of potassium, the remaining elements being essence of garlic, which, being volatile, is easily diluted.—*London Chemist and Druggist.*

Photographing upon Silk.—A process has been devised at Lyons, the great silk manufacturing locality of France, for photographing upon silk, linen, &c., so that persons, instead of marking their initials upon the corner of a handkerchief, can have their photographs taken upon the fabric. In the silk shops various articles are exhibited, photographed with names, portraits, and fanciful devices. The pictures are not injured by washing, and the process is said to be easily and rapidly effected.—*American Druggists' Circular.*

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Eléments de Pathologie Interne et de Thérapeutique (Principles of Internal Pathology and Therapeutics). PAR NIEMEYER, Professor de Pathologie de Tubingue.

[Concluded from page 463.]

NIEMEYER admits that in persons who have had but one or two attacks of gout often no deposit is found in the joints, while true gouty deposits occur in the uriniferous tubes of the kidney and in the skin very frequently, and that gout in the stomach, heart and brain are real diseases. Strictly speaking, the muscles are the organs of motion; but not even Niemeyer would contend that gout is a disease of the muscles.

But it is unnecessary to prolong this discussion, as it answers no useful purpose, and one example is sufficient. The somewhat arbitrary mode of classification may be a defect at which the enthusiast of theories will cavil, but, for our own part, we prefer an author, who, like Niemeyer, in view of the imperfection of our science, avoids a too strict attempt to draw lines merely imaginary.

We notice the absence of the tables of comparative or differential diagnosis (which add so much to the practical value of Valleix's Guide, for example), and of the summaries of treatment. But this is not a book to be hastily caught up; it requires to be thoughtfully studied. Yet it is neither dry nor exceedingly profound. It aims to look just so far into the subject of internal pathology as the present state of medical science in Europe will permit us to see clearly, and no farther.

There is little to be said about the author's treatment. It is distinguished for simplicity, independence and good sense. It belongs to no particular school. Niemeyer regards medicine as an art to be practised as well as a science to be studied. He shows the direction in which we are to act rather than the means, pointing out the indications of treatment, and never despairing of our being able to fulfil them. It is a hopeful book for the art as well as for the science. He believes in "self-limited diseases," yet not the less carefully does he indicate the remedies and the doses, and what these remedies may be expected to effect.

Perhaps we cannot better complete this notice, nor convey an idea of the scope of this work, than by giving in a rapid *résumé*, or *coup d'œil*, a view of the author's treatment of a subject which has of late occupied periodical medical literature almost too exclusively.

Cholera, like other diseases in this volume, is discussed under four heads or chapters:—1st, Pathogeny and Etiology; 2d, Pathology; 3d, Symptoms and Course; 4th, Treatment.

Diagnosis, prognosis, prophylaxy, &c., are not separately considered, but are brought under one or another of the above heads.

Under Pathogeny and Etiology we find:—

"Probably always, certainly most frequently, it is the dejections of persons infected with cholera poison which serve to transmit the disease to others." "While on the one hand the closest contact between the infected and the healthy is insufficient to produce the disease in the

latter, it is certain on the other that the disease can only be propagated by those who are infected." "It would seem that the virus is not found ready formed in fresh cholera stools, but that it becomes developed therein after a time; and, perhaps, special conditions are required to favor this development."

Under "Anatomie Pathologique" is a superb chapter detailing the *post-mortem* appearances.

The bodies retain their heat remarkably, and sometimes the temperature has been found to rise after death. A very remarkable occasional phenomenon also, is the contraction of the muscles of the corpse, causing the body to move and the fingers to close.

If death has occurred at the height of the disease, the aspect of the body is very characteristic. The closed fists, flexed limbs, and prominent muscles, give it a very menacing attitude—it looks as though it were fighting. The cadaveric rigidity is overcome with difficulty. The features are scarcely recognizable. The sunken eyes, half open and dry in their shrunk orbits, the peaked nose, the cyanosed flesh, and the par-boiled and blue fingers, are all characteristic.

The internal appearances are very minutely described, but are too familiar to be repeated here. The most important anatomical change in the interior of the intestines is the enormous elimination of epithelial cells. The villi of the intestines are stripped of their covering; in certain parts the epithelial layer is simply raised up by serous exudation and still adheres loosely, but in most places it is thrown off, and is seen lying in strips upon the mucous coat of the intestine, or forms the white flocculi floating in the rice-water fluid. He compares the mucous membrane of the intestine of a cholera patient to skin deprived of its epidermis by a blister. "The characteristic modifications, present in patients dying of cholera at its height, consist essentially in the alterations produced by extensive intestinal catarrh, together with the throwing off of cellular epithelium and an excessive transudation of fluid through the intestinal mucous membrane, and in a considerable thickening of the whole mass of the blood."

Under "Symptoms and Course," he says that he considers it an error to suppose that fear induces cholera. The period of incubation he places at from thirty-six hours to three days.

The premonitory diarrhœa is often neglected, even by those who run to consult a doctor for their slightest ailments. These copious watery stools, more or less frequent, but usually without pain or unhealthy color or odor, he considers to constitute the first stage of the disease, or more properly its lightest form.

When violent vomiting comes on, accompanied by rice-water discharges, we have to do with the very grave form, although the thickening of the blood is not yet very marked. This constitutes cholérine (*forme éréthique de choléra*). The discharges are colorless, simply because of the excessive exudation of serum by the intestines, and not because of the failure of the products of excretion or secretion. "The microscopic and chemical examination of this serum shows it to be very poor in albumen, but rich in salts, especially common salt, and that the flocculi are composed of coherent strips of intestinal epithelium of young cells and detritus. Other not constant elements are, crystals of phosphate of ammonia and magnesia, particles of food, parasites, vibrions and cryptogams, and often blood cor-

puscles." "This condition of the dejections, recognized as pathognomonic by authors, explains all the other symptoms of cholera. The phenomena produced in the intestines by the infection of cholera can be justly compared to those which appear in the skin when a blister is produced." The thirst which accompanies the characteristic stools is the result of the subtraction of so much water from the blood, and the same fact, together with the failure of the heart's action, explains the stopping of the urinary secretion. Cramps are not pathognomonic, as they occur in cholera morbus as well as in Asiatic cholera.

The stage of collapse (*forme asphyxique*) of cholera results from heightening of the diseased process in the intestines. He says that nearly all experienced physicians to-day deny the existence of "dry cholera." But many still believe that the significance of the intestinal affection is no greater than that of the typhoid intestinal lesion in typhoid fever.

Then follows a graphic description of the clinical phenomena. He believes that the collapse, or *algid* stage of cholera is produced precisely as somewhat similar phenomena are in the case of an extensive burn upon the skin. Serum is poured out in enormous quantities, whence result thickening of the blood, dryness of the tissues, and stoppage of all the secretions. The arrest of the heart's action is due to a variety of causes—partly to shock, especially coming from intestinal lesion, a similar phenomenon being remarked in cases of perforation. It is very likely due in part to arrest of capillary circulation in the heart itself, the result of blood thickening. This may also account for the sense of oppression and anguish which marks the *algid* stage, there being no movement of blood in the pulmonary capillaries. A sudden cessation of the stools must not be mistaken for a favorable symptom, as it is not seldom the result of paralysis of the intestines. Death in cholera resembles a gradual extinction. The absence of the usual tracheal râles is remarkable.

In cases of recovery, the stools become less copious and frequent, and ingested liquids cease to be immediately rejected by the stomach. The capillary circulation re-appears, and the pulse. Convalescence may follow at once. And again the author compares the symptoms to those which appear when the skin is recovering from a blister. But often recovery is incomplete or typhoid cholera appears. This form is almost exclusively the sequel of collapse, never of the simple diarrhoea, and very seldom of cholera. But let us pass to "Treatment."

Niemeyer is an advocate of strict quarantine. All drains, cess-pools, sinks, receptacles of offal or manure, &c., should be carefully cleansed and purified in time of cholera. Especially should no cholera dejections be allowed to find their way into the common sewers. Those who can, had better run away. Those who cannot, must avoid strange privies. A physician should warn all his patients to send for him if they have even an approach to a diarrhoea, to rest in bed until he comes, and to drink some hot coffee and take some anti-cholera mixture.* A brisk sweat sometimes averts an attack, and there is great danger in a sudden arrest of the perspiration.

* The Russian drops, for instance, containing æth. tinct. of valerian, wine of ipecac, Sydenham's Jaudanum and essence of peppermint.

The indication in cholera is to replace the water which the blood has lost. Also, the symptomatic treatment should keep in view first of all to combat the intestinal affection. A third task is to overcome the tendency to paralysis of the heart. If, after repeated doses of Dover's powder (or laudanum, with some ethereal preparation, or mucilage, if you please), the diarrhoea persists and becomes decided, the patient visibly failing, skin growing cold and dejections losing color, in such a case opium is *contra-indicated*. In this stage, cold compresses constantly renewed upon the abdomen, and grain doses of calomel every hour, have proved serviceable in Niemeyer's experience. Bits of ice, or frequent sips of ice-water fulfil, as far as possible, the indication for supplying water to the blood. The pulse diminishing and the patient sinking, foaming champagne, or rum, or arak and water, are far preferable to any other stimulants.

It will be found a good plan to substitute occasionally a few cups of very strong hot coffee for the ice-water or broken ice. This will ordinarily be rejected by the stomach, but not until its effect has been produced in strengthening the pulse and elevating the temperature of the surface. He rejects sinapisms as liable to abuse, and advises rubbing the cramped limbs with essential oil of mustard.

Great circumspection is necessary in the administration of food during the period of reaction.

The notes of Dr. V. Cornil are deserving of special notice. They are valuable additions to the text of the work.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 10, 1867.

THE MILK CURE.

SUCH is the title of a novel method of treating disease, which is described in a paper by Dr. Philip Karell, of St. Petersburg, which we find occupying a prominent place in several recent European medical journals. Singular as it may seem, the author claims, that by the simple use of milk alone, without drugs, he has cured hundreds of cases, many of them of obstinate, protracted, chronic diseases, which had long resisted the common methods of treatment. He attributes his success to judicious use of the remedy and strict observance of method in its administration. The article we refer to was read before the Medical Society of St. Petersburg, in March, 1865, and we find it translated both in the *Archives de Médecine* and the *Edinburgh Medical Journal*; the author styles himself Physician to the Emperor of Russia.

He first gives a sketch of the opinions of medical writers from the time of Hippocrates to the present on the efficacy of milk in the treatment of numerous forms of disease. In Russia its special use under the title of Milk Cure is not new, and as long ago as 1857 Dr. Inozemtseff published a book on the subject in Moscow. Dr. Karell,

however, claims greater precision in his method, and speaks with great confidence of his results.

"With regard to my own practice," he says, "I have, after fruitlessly trying all sorts of remedies in many chronic and obstinate diseases, at last succeeded in thoroughly bringing the alimentary canal, that seat of so many diseases, under my control. I did this by administering milk according to a new method. The results which I have thus obtained tempt me to publish my observations with reference to the efficiency of this mode of cure, provided, of course, that it be administered with method, and by a person of experience. And in the first place, then, must we attribute the beneficial influence of milk in certain serious illnesses merely to its nutritive qualities, or to some occult medicinal virtue? I cannot pronounce in favor of the one or of the other hypothesis. It must be remembered, however, that milk and chyle resemble each other very closely. After a great deal of experience, I have arrived at the conclusion, that in *all dropsies*, in *asthma*, when the result of emphysema and pulmonary catarrh; in obstinate *neuralgia*, when its causes lies in the intestinal canal; in diseases of the *liver* (simple hypertrophy and fatty degeneration), and generally in diseases where there is faulty nutrition, often a consequence of obscure sub-acute inflammation of the stomach or intestines, followed by affection of the nervous centres—in all these cases, I consider milk as the best and surest of remedies. Even in those cases where the dropsy is the result of organic heart disease, or of old-standing liver complaint, or of far-advanced Bright's disease, I have seen very marked improvement take place, which also lasted a considerable time. But if, unfortunately, we are unable to cure organic disease, shall we not have conferred a great benefit on poor anasarctous patients if we reduce, with a promptitude little hoped for from other remedies, the distressing symptoms of oedema?"

His method is as follows:—

"I generally commence the cure by employing milk *alone*, and forbidding all *other kind of nourishment*. I proceed with great caution in prescribing for the patient, three or four times daily, and at *regularly-observed intervals*, half a tumbler or a tumbler, *i. e.*, from 2 to 6 ounces, of skimmed milk. Its temperature must be made to suit the patient's taste. In winter they generally like tepid milk, heated by placing the tumbler or cup in a vessel filled with hot water. In summer they generally prefer it of the same temperature as the surrounding atmosphere. They should not gulp it all at once, but take it slowly and in small quantities, so that the saliva may get well mixed with it. Of course, the milk must be of good quality. That of town-fed cows has generally an acid reaction; that of country-fed cows is better, because its reaction is generally neutral. If the patient digest the milk well, which is proved by the *fæces* becoming solid, I gradually increase the dose. The first week is the most difficult to get over, unless the patient has a strong will and firm faith in the cure. During the second week two ordinary quarts are generally administered each day. If the cure take its regular course, then the milk must be drunk four times daily—at eight in the morning, at noon, at four P.M., and at eight, P.M. If the patient desire it, I change the hours, but I always insist on regular intervals being observed; for the patient will think

lightly of the cure, if he be not ordered to observe some regularity while subjected to it. No confidence can be inspired, and no cure expected, if the physician says to his patient, 'Drink milk in whatever quantities, and whenever you wish.' "

This treatment the author rigidly pursues for weeks, and it is only at the end of the second or third week that the patient, if he have a strong desire for solid food, is allowed a little stale bread with salt, or a small piece of salt herring. Sometimes porridge made of oat-meal and milk is substituted at this time for one of the meals of milk alone, and at the end of five or six weeks a steak or chop is allowed once daily. The author goes on to report in detail a number of cases of grave chronic disease, most of which were greatly relieved or entirely recovered under this plan of treatment. Among these we find cases of diabetes, extensive dropsy with valvular disease of the heart, diarrhoea of thirty-five years standing, with neuralgia, intermittent fever, Bright's disease, &c.—surely a formidable catalogue! The secret of its efficacy he attributes to its power of correcting "perverse or deranged nutrition," which, he claims, is the obstinate enemy which physicians have to combat in almost all chronic diseases. We cannot follow the author in his discussion of the indications or contra-indications of the Milk Cure, or his explanation of it. The whole paper is worthy of careful perusal, and to that we must refer our readers. It is published in the *Edinburgh Journal* for August, and the *Archives* for November, 1866.

"A Woman's View" of "Why Not?" MESSRS. EDITORS.—I cannot refrain from expressing my feelings of thankfulness at your publication of "A Woman's View," in a late number of your JOURNAL, relative to abortion. Dr. Storer's work had already been brought to my attention with—as must be the result to every right-minded man—approval; but the addenda, or rather complement, of his valuable little book, lies in that "nutshell of pertinence," the article referred to. I lit upon your JOURNAL by the merest chance. I am on the eve of marriage myself, and though not a whit more sensual than most men, cannot be too grateful for having thus forcibly brought to my mind a view which I for one had doubtless scarce otherwise considered. I would to God that it might meet and claim the serious consideration of every man born of woman's agony. Yours very truly,

A FIGHTER FOR THE RIGHT AGAINST WRONG.

Rapidity of Nerve Action.—Haller attempted, in reading the Eneid aloud, to count the number of letters which he could pronounce in a minute. Finding that he could pronounce 1500, among which the R, according to his statement, requires ten successive contractions of the stylo-glossus, he affirms that a muscle can contract and relax itself 15,000 in a minute; and as the time of relaxation is as long as that of contraction, each contraction requires about $\frac{1}{1000}$ of a minute, or $\frac{1}{100}$ of a second. From this Haller concludes that the nervous agent requires the $\frac{1}{100}$ of a second to go from the brain to the stylo-glossus muscle.—*Revue des Cours Scient.*

Successful Removal of a large Bronchocele.—Dr. W. W. Greene, Professor of Surgery in Berkshire Medical College, and in the Medical School of Maine, reports in the *Medical Record* the successful removal of a large bronchocele. The patient was a German lady of forty-five years, residing at Albany, N. Y. The tumor had existed twenty-six years, but had only become troublesome within a year and a half previous to the operation. It consisted mainly of an enlargement of the right lobe of the thyroid gland, and caused great distress by pressure on the common carotid, trachea and œsophagus. Any attempt to swallow or talk caused terrible dyspnoea. She was unable to lie down, and required constant watching during sleep to prevent suffocation. She suffered much from headache and giddiness, and could not stoop without loss of consciousness. The hæmorrhage was profuse during the operation, and the internal jugular was wounded and secured by a ligature. The patient recovered without a bad symptom, at the end of five weeks the wound had entirely healed, and the patient is now in perfect health. The tumor weighed one pound nine ounces, avoirdupois. Prof. Greene is to be congratulated on the successful issue of one of the most doubtful operations in surgery.

Recovery of Prof. Trousseau.—Some of our cotemporaries were misled by the erroneous cable despatch announcing the death of Prof. Trousseau. One of them announces an obituary notice as in preparation, and so recently as the 1st inst. alludes to his death. We stated several weeks since that his illness was slight, and the *Union Médicale* of Dec. 4th says, "the friends of M. Trousseau and all our *confrères* will receive with satisfaction the news of his complete restoration to health."

Boston City Hospital.—From the inaugural address of His Honor the Mayor, we learn that the number of patients in the City Hospital January 1st, 1866, was 117; admitted during the year, 1,432; discharged during the year, 1,263; deaths, 123; remaining January 1st, 1867, 163. Treated as medical and surgical out-patients, 1,955; as ophthalmic out-patients, 1,369.

The Marine Hospital in Chelsea.—The number of inmates of the Marine Hospital, in Chelsea, during the past year, has been 777. Nineteen nationalities, and eleven of the United States, have been represented in this number. The number of patients in the Hospital January 1, 1867, was 116. Since the establishment of the institution, 11,600 patients have been received, of whom 1718 have died.—*Daily Advertiser.*

Cholera in Great Britain.—From the returns of the Registrar-General for England, it appears that the number of deaths from cholera in England during the quarter ending September 30th, was 10,365; deaths from diarrhoea, 9,570. Of the deaths from cholera, 4,714 occurred in London, 1,872 in Lancashire, and 1,412 in South Wales. The epidemic has been most fatal on the sea-coast, in the chief ports of the kingdom. The Registrar-General for Scotland announces the

appearance of the disease in Scotland in the last week of July. The deaths in the eight chief towns during October were 219. The Registrar-General for Ireland states that, notwithstanding the outbreak of cholera in different parts of the country, the deaths registered during the quarter were 103 less than during the corresponding quarter of last year.—*Lancet*.

Retirement of Dr. Brown-Séquard from Practice.—We learn that Dr. Brown-Séquard, who had consented, when he came to Boston, to see patients twice a week at Dr. Shattuck's office, has now decided to give up altogether the practice of medicine.

Harvard Medical School.—Although the medical journals report the number of medical students at Philadelphia and New York as being below the average at the present time, the number in Boston was never so large, 303 having registered their names.

VITAL STATISTICS OF BOSTON.
FOR THE WEEK ENDING SATURDAY, JANUARY 5th, 1867.
DEATHS.

	Males.	Females.	Total.
Deaths during the week	51	44	95
Ave. mortality of corresponding weeks for ten years, 1856—1866	41.1	39.4	80.5
Average corrected to increased population	00	00	88.69
Death of persons above 90	0	0	0

ERRATUM.—In our last issue, page 462, tenth line from top, for "history, bibliography, symptoms," read history, bibliography, *synonyms*.

JOURNALS AND PAMPHLETS RECEIVED.—Medical Record, Nos. 20 and 21.—Medical and Surgical Reporter, Nos. 23-26.—Buffalo Medical and Surgical Journal for December.—Chicago Medical Examiner for December.—Cincinnati Journal of Medicine for December.—Cincinnati Lancet and Observer for November and December.—Medical Reporter, Nos. 19 and 20.—Detroit Review for November.—Nashville Journal of Medicine and Surgery for December.—Richmond Medical Journal for December.—Medical and Surgical Pioneer, Kansas City, Mo., for November.—New Orleans Medical and Surgical Journal for November.—Pacific Medical and Surgical Journal for December.—L'Union Médicale, Nos. 140-151.—London Lancet (reprint) for December.—American Journal of Pharmacy for November and December.—Chemist and Druggist for December.—Journal of Materia Medica for December.—Dental Cosmos for December.—Dental Register for December.—University Journal of Medicine and Surgery, Nos. 6 and 7.—American Eclectic Medical Review for December.—Boston Journal of Chemistry and Pharmacy for December.—The Herald of Health for December.—Hall's Journal of Health for January.—Phrenological Journal for January.—Insanity in its Medico-Legal Relations. By William A. Hammond, M.D., &c.—Annual Report of the New England Hospital for Women and Children.—Thirtieth Annual Report of the Officers of the Vermont Asylum for the Insane.

MARRIED.—At Waltham, Jan. 1st, Dr. L. D. Frost, late of the U. S. Navy, to Miss Clara M. Newhall, both of Waltham.

DIED.—At Baltimore, Jan. 2d, of pneumonia, John C. S. Monkur, M.D.

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 5th, 95. Males, 51—Females, 44. Accident, 2—apoplexy, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 3—burns, 1—cancer, 1—consumption, 20—convulsions, 4—coxalgia, 1—debility, 3—diphtheria, 2—dropsy, 2—dropsy of the brain, 4—drowned, 1—erysipelas, 1—scarlet fever, 5—disease of the heart, 4—infantile disease, 3—insanity, 2—jaundice, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 8—marasmus, 2—old age, 1—premature birth, 2—smallpox, 3—disease of the spine, 1—thrush, 1—tonsillitis, 1—unknown, 8—whooping cough, 1—inflammation of the womb, 1.

Under 5 years of age, 33—between 5 and 20 years, 12—between 20 and 40 years, 19—between 40 and 60 years, 16—above 60 years, 15. Born in the United States, 60—Ireland, 23—other places, 12.